

(19)  Canadian
Intellectual Property
Office

An Agency of
Industry Canada

Office de la Propriété,
Intellectuelle
du Canada

Un organisme
d'Industrie Canada

(11) **CA 2 393 380** (13) **A1**
(40) 08.12.2002
(43) 08.12.2002

(12)

(21) 2 393 380

(51) Int. Cl. 7: **E01F 13/12, B26F 1/24**

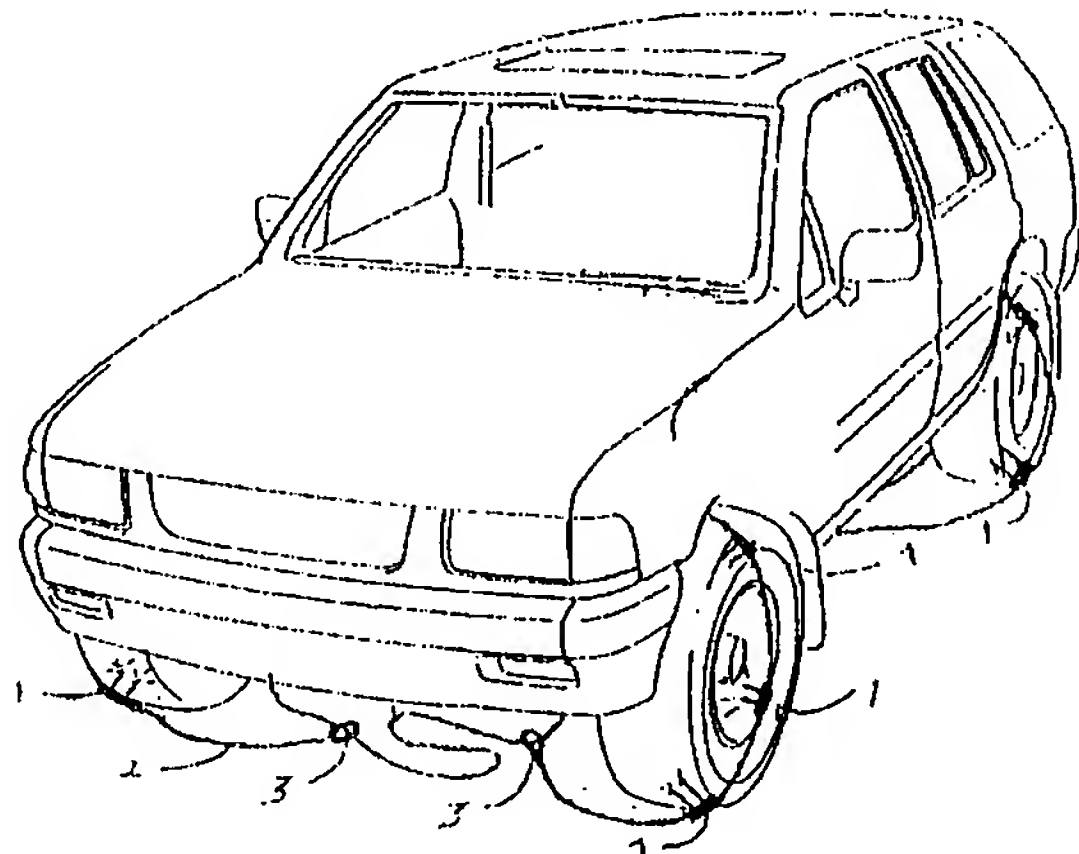
(22) 01.08.2002

(71) COLLIER, ACE R.,
P.O. Box 590, BOUSE, XX (US).

(72) COLLIER, ACE R. (US).

(54) PIEGE POUR ROUES D'AUTOMOBILE
(54) AUTOMOBILE WHEEL AND TRACK SNARE

(57)
What I claim to be my invention is a vehicle
disabling device wherein a plurality of holding spike
like probes with base plates strung on to a cable of
wire rope with ends fashioned in to a running boline or
noose to chock and hold vehicle tires wheels and
control arms wheels meaning part steel or all steel all
steel such as on a track driven vehicle.





Office de la Propriété
Intellectuelle
du Canada

Un organisme
d'Industrie Canada

Canadian
Intellectual Property
Office

An agency of
Industry Canada

CA 2393380 A1 2002/12/08

(21) 2 393 380

(12) DEMANDE DE BREVET CANADIEN
CANADIAN PATENT APPLICATION

(13) A1

(22) Date de dépôt/Filing Date: 2002/08/01

(41) Mise à la disp. pub./Open to Public Insp.: 2002/12/08

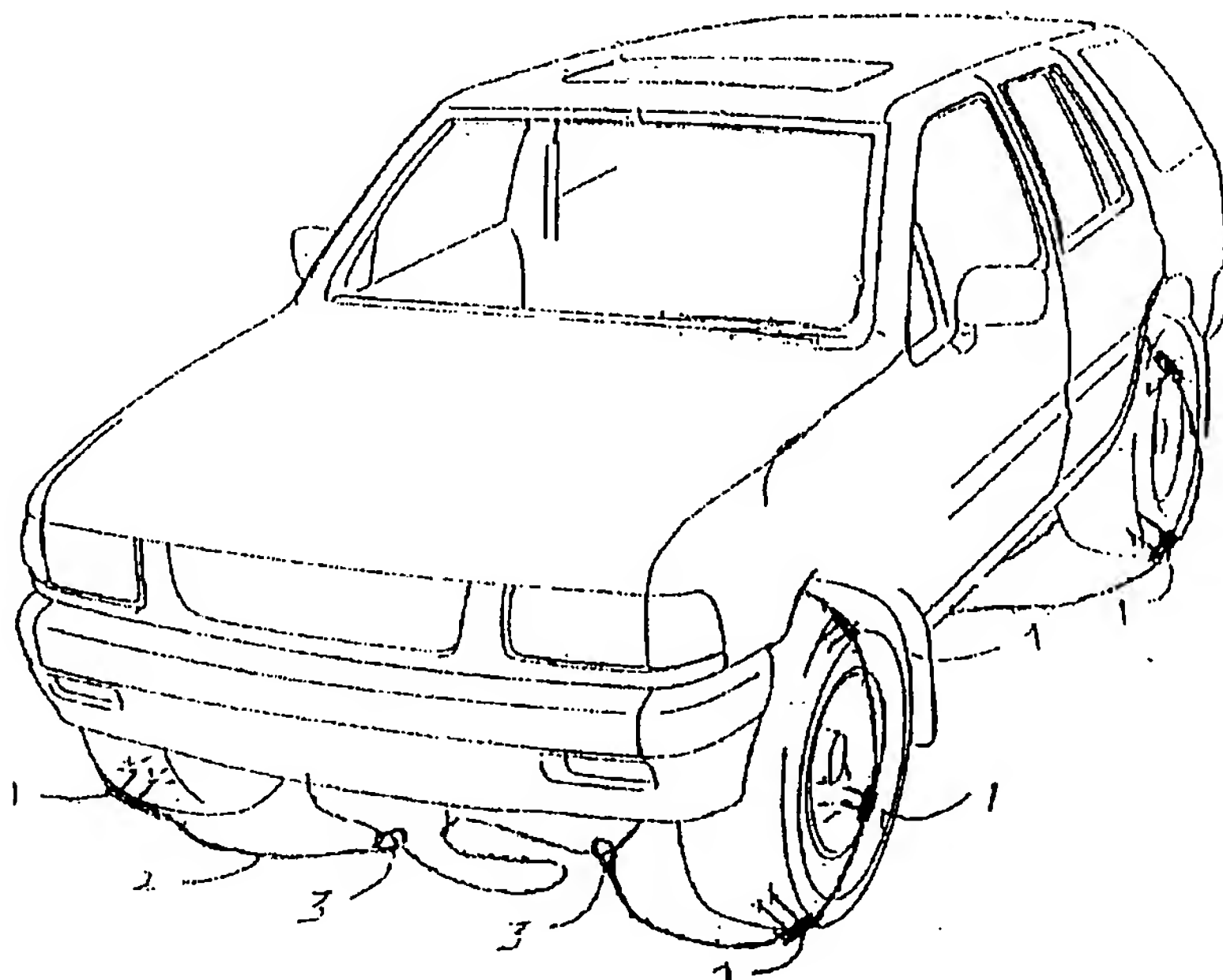
(51) Cl.Int.⁷/Int.Cl.⁷ E01F 13/12, B26F 1/24

(71) Demandeur/Applicant:
COLLIER, ACE R., US

(72) Inventeur/Inventor:
COLLIER, ACE R., US

(54) Titre : PIEGE POUR ROUES D'AUTOMOBILE

(54) Title: AUTOMOBILE WHEEL AND TRACK SNARE



(57) Abrégé/Abstract:

What I claim to be my invention is a vehicle disabling device wherein a plurality of holding spike like probes with base plates strung on to a cable of wire rope with ends fashioned in to a running boline or noose to chock and hold vehicle tires wheels and control arms wheels meaning part steel or all steel all steel such as on a track driven vehicle.

Canada

<http://opic.gc.ca> • Ottawa-Hull K1A 0C9 • <http://cipo.gc.ca>

OPIC • CIPQ 191

OPIC



CIPQ

COLLIER

ABSTRACT

What I claim to be my invention is a vehicle disabling device wherein a plurality of holding spike like probes with base plates strung on to a cable of wire rope with ends fashioned in to a running boline or noose to chock and hold vehicle tires wheels and control arms wheels meaning part steel or all steel all steel such as on a track driven vehicle.

METHOD FOR DISABLING WHEEL
AND TRACK DRIVEN VEHICLE

FIELD OF THE INVENTION

The device is an invention to disable vehicles.

BACKGROUND OF THE INVENTION

Every year persons are killed in high speed motor vehicle chases, when police are forced into chasing fleeing suspects. The victims of these high speed chases include police officers, suspects, and members of the public. Members of the military are often time victims.

Description of the prior art. Various road barriers and tire piercing structure has been utilized in the prior art to prevent vehicle from fleeing from police. Prior art tire piercing apparatus is exemplar in U.S. Pat. No. 4,473, 948 Chadwick where in a base plate includes a plurality of pins projecting upwards of the base plate to prevent an automobile from being driven. U. S. Pat. No. 4,382,714 Hutchison this invention is a vehicle disabling device adapted to project a plurality of spike like devices to puncture one or more tires of a fleeing vehicle. Spike bases secured to bases by either a strand or cord also a short length of chain.

Collier

U.S. Appl. No. 60/136,142 Filing date May 14, 1999

Review fig. 7 fig. 8

Fig. 7. no. 2 is base plate, no. 5 cable sleeve, view show tire ridding up on and holding base plate in place. Fig. 8 view of three wheels being caught up by a three cable set of snairs on a 4 wheel drive vehicle. Fig. 9 is folding deployment board with cable spikes and bases attached with break away clips.

The object of the invention is to provide vehicle stoping device in quickest possible time. This is done by using a tire snair that grabs and holds the tire in its place. Snair spikes are polly coated as they inter the tire the air pressure stayes intact. If the tires are jelled or solid so much the better. Cable is theaded threew guide sleeves attached to bottom of base plate. Each end of cable has sliding noose to effect a tether. As the tire and wheel become impaled probes and cable are pulled up and around the wheel in a diaginal effect, probes grip the sides of wheel and tire causing a coil that raps around wheel control arms and drive axles, this action renders the vehicle immovable.

The device is simplistic compact, easy to manufacture transport and deploy. O-mitting deployment board rapping with rubber cord device may be deployed by aircraft.

Collier

BRIEF DESCRIPTION OF DRAWINGS

Fig. 1. is a side view of base plate;
Fig. 4. is a isometric projection of base plate showing sleeve with cable and impaling screws.

Fig. 2. is a view of cable and spike screw, folding base with hinges for deployment.

Fig. 3. is a view of device laid out in front of vehicle.

Fig. 5. is a view showing cable with loops coiling around wheels control arms and drive axles. Cable clamp for cable loop.

Fig. 6. is a view showing cable snare gripping wheel. No.2 spikes.

Fig. 7. shows tire holding spike base plate to facilitate spike penetration.

Fig. 8. showing 3 cable snare locking on to 3 wheels of a 4 wheel drive vehicle.

Fig. 9 cable spikes with base plates and folding deployment board.

Collier Appl. No. 60/136.142 What I claim 1. U.S.

SUMMARY OF THE INVENTION

1 What is required is a method and apparatus
2 that can be used to halt a suspect's motor
3 vehicle in advance of police chase, render-
4 ing a high speed chase unnecessary. In its
5 preferred embodiment the wheel and track
6 snair consists of a folding deployment board
7 + Ten feet long, one or two feet wide, meas-
8 urements can be aproxamented depending on the
9 immediate requirements, as the device can
10 be assembled in a very short time. The device
11 with its built in nomanclature is designed to
12 halt a vehicle in a very short time, with in
13 moments of contact. If only one front wheel
14 is snared cable and spikes will reach a
15 rear wheel coiling around said wheel ren-
16 dering it motionless. Add one more cable
17 snair for four wheel drive vehicle. Half-
18 track or all track vehicle such as military
19 armored tank snair deviation will be ex-
20 planed here in after. If device snair one
21 front wheel and one rear wheel although not
22 explicitly depicted vehicle will be
23 brought to a halt.
24
25
26
27
28

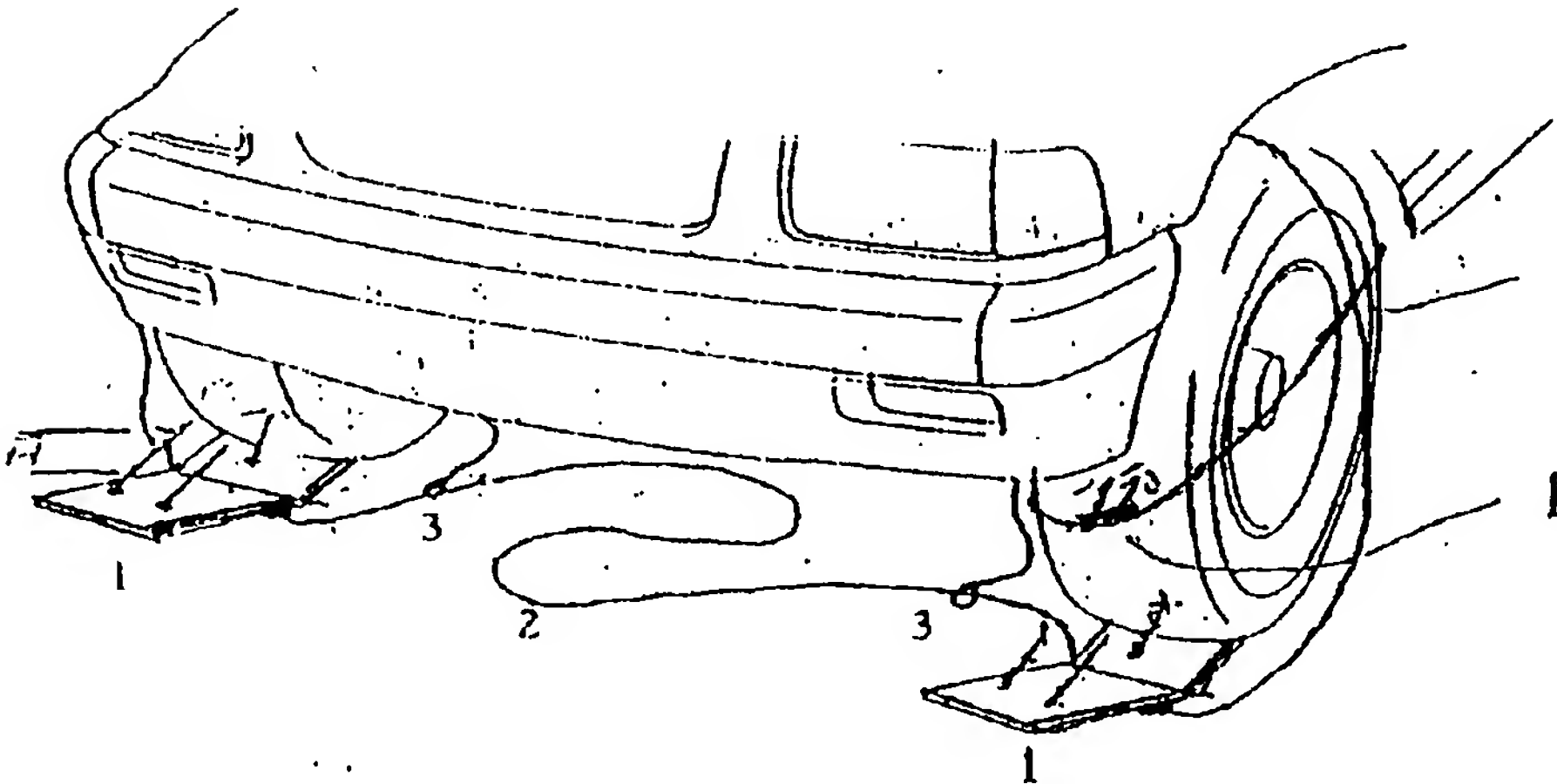
15
08
15

Ace Robert Collier

P.O.BOX. 590

Bouse Az. 85325-0590

What I claim to be my invention is a vehicle disabling stoping device that will bring vehicle to a very quick stop. A one to ton vehicle regardless of the wheel or track configuration. This is accomplished by using aircraft type cable laced through guide tubes welded to base plates that have two to four tire probes attached to base plate; on track driven vehicle grappling hooks are used. When vehicle engages the device the probes lock on to the tire solid or inflated. On track driven hooks lock on to track shoe and drive sprocket wheels. Cable ends are fashioned with a running boline using a double clevis for heavy vehicle. The cable coils around spinning wheels and track shorting the cable until it chocks the wheels control arms drive axles and sprocket wheels.



COLLIER

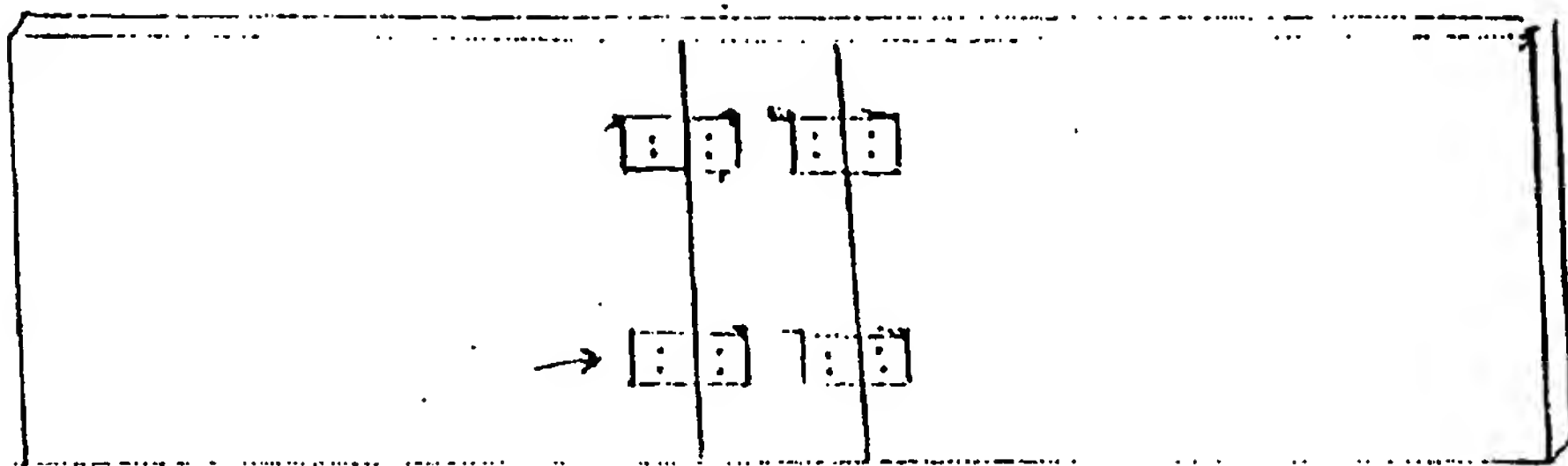


FIG. 2

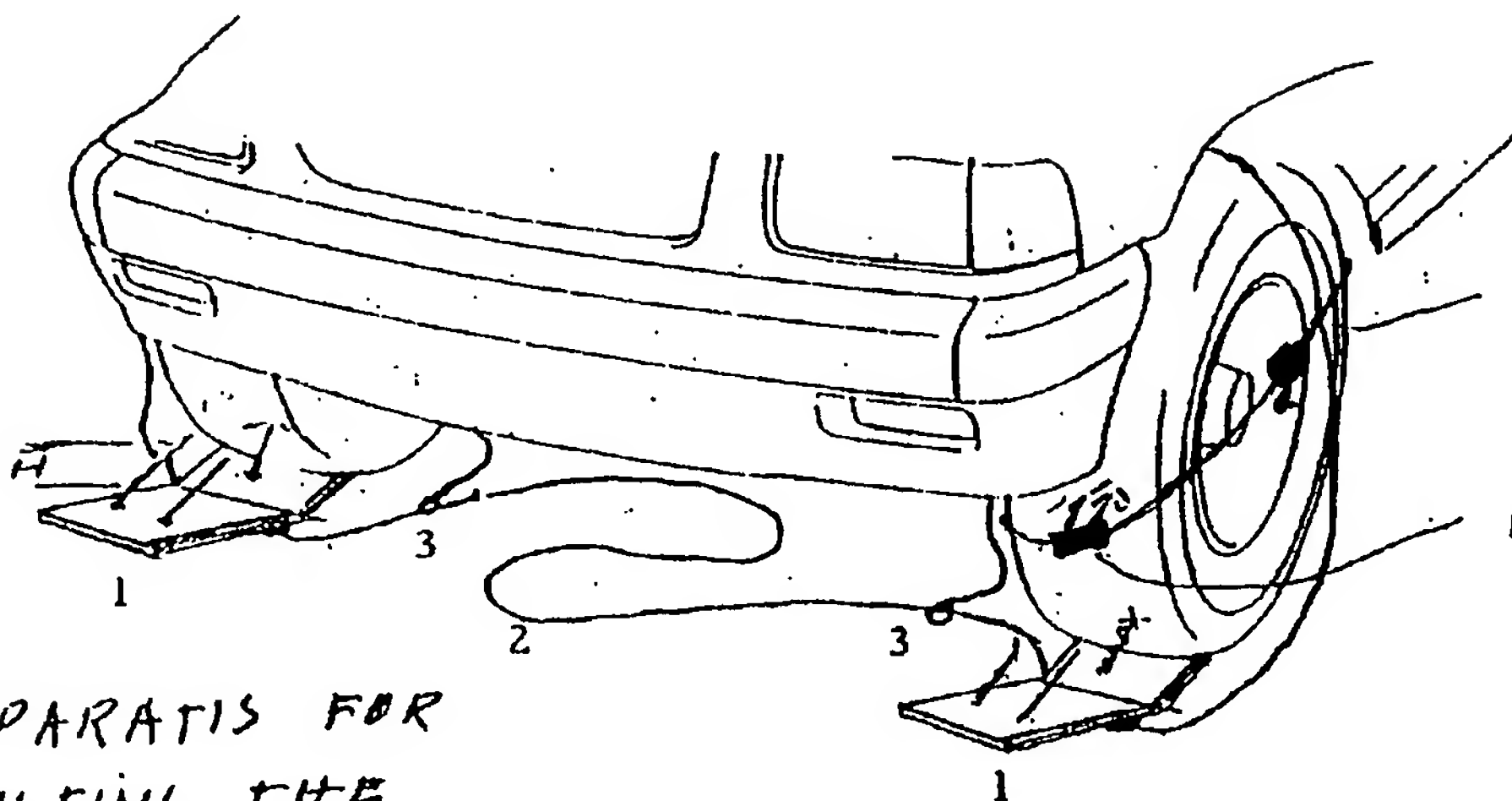


FIG. 3

APPARATUS FOR
HAULTING THE
PROGRESS OF
VEHICLE

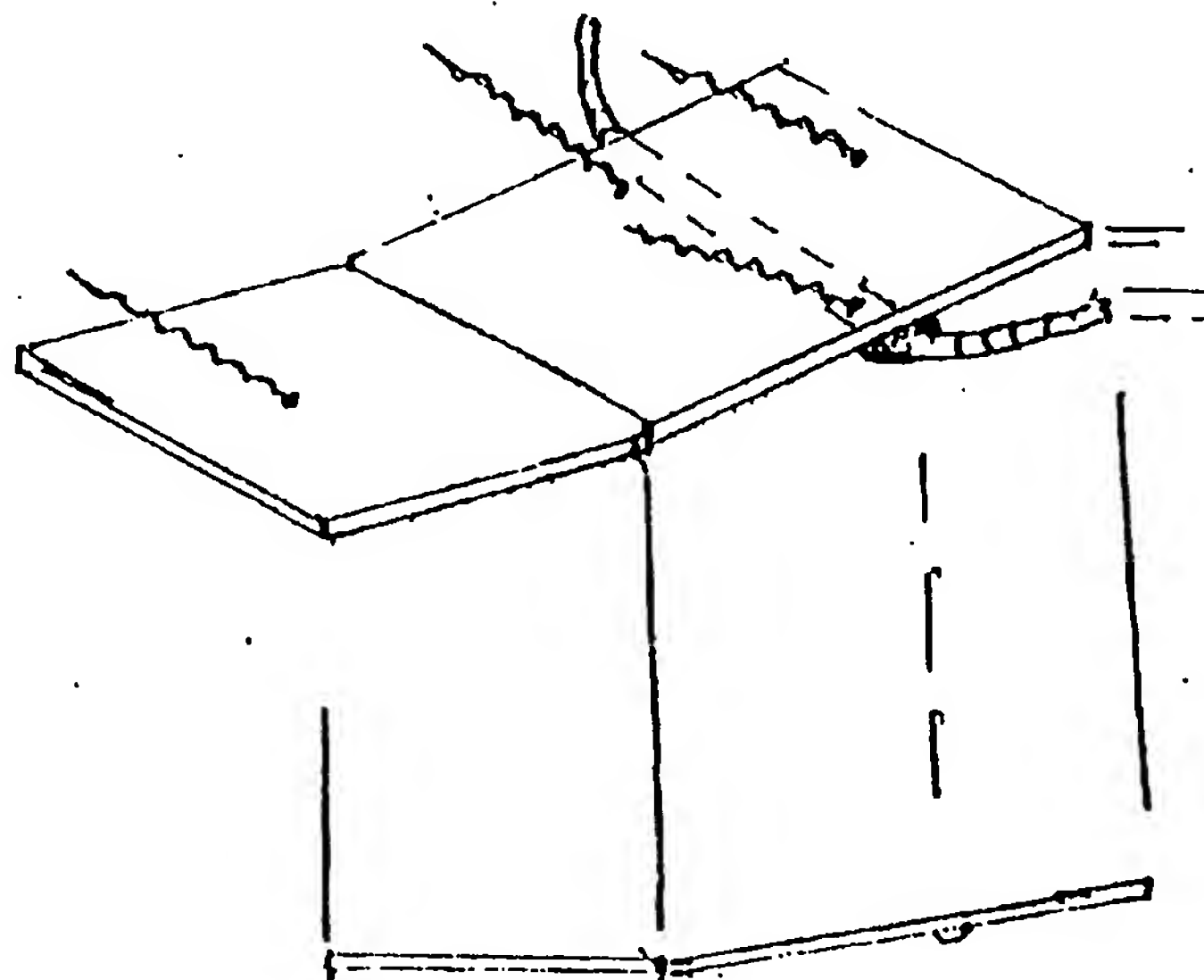


FIG. 4

FIG. 1

Collier Appl, No. 60/136, 142 Filed May 14, 1999 U.S.

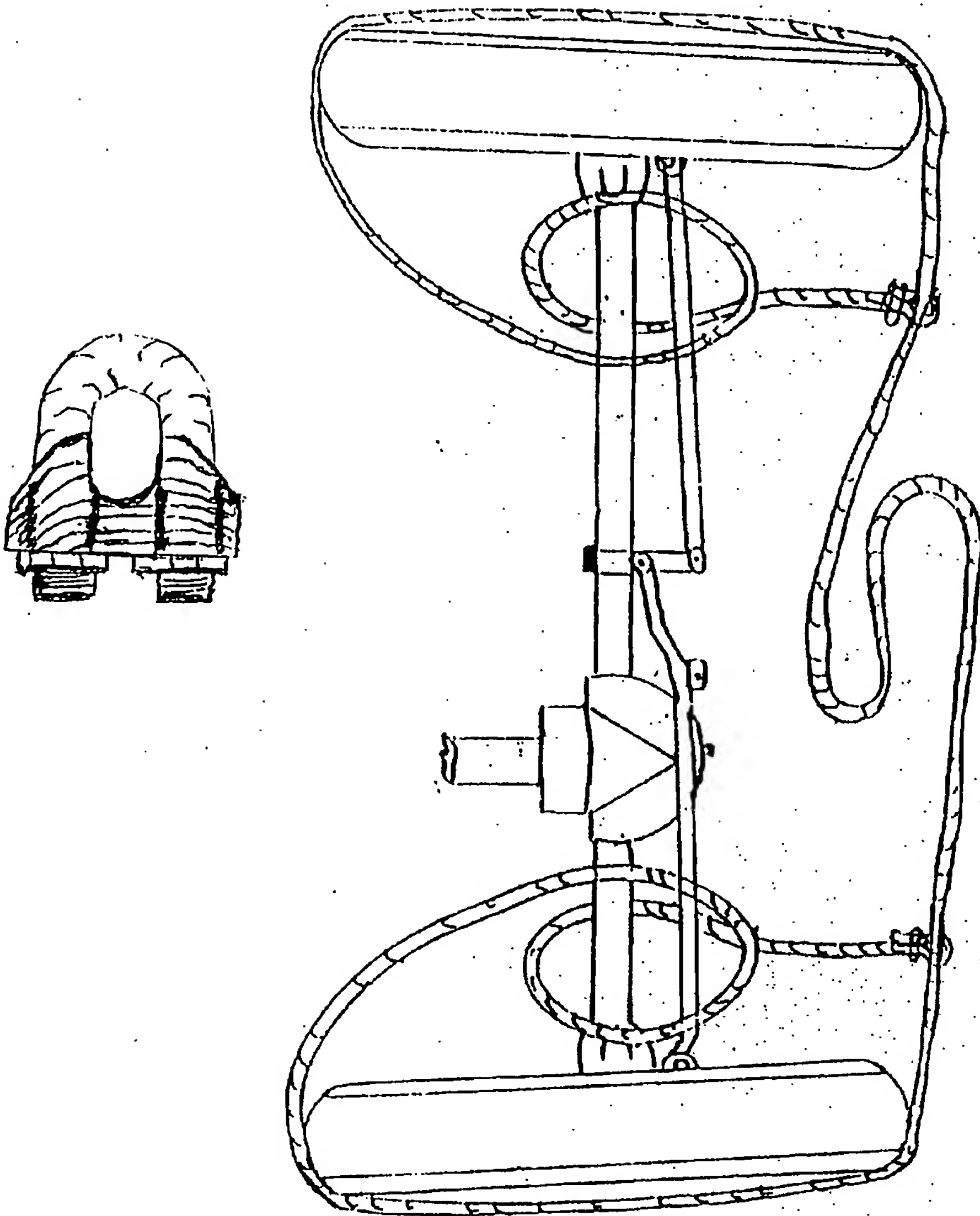


FIG. 5

Collier Appl. No. 60/136,142 Filed May 14, 1999 U.S.

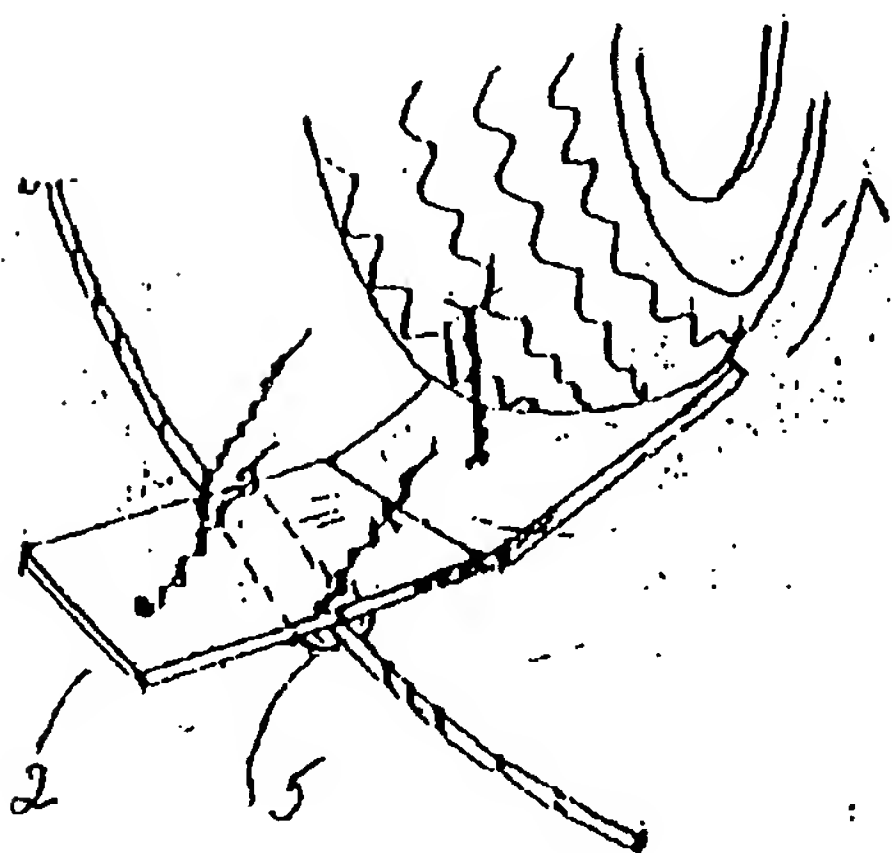
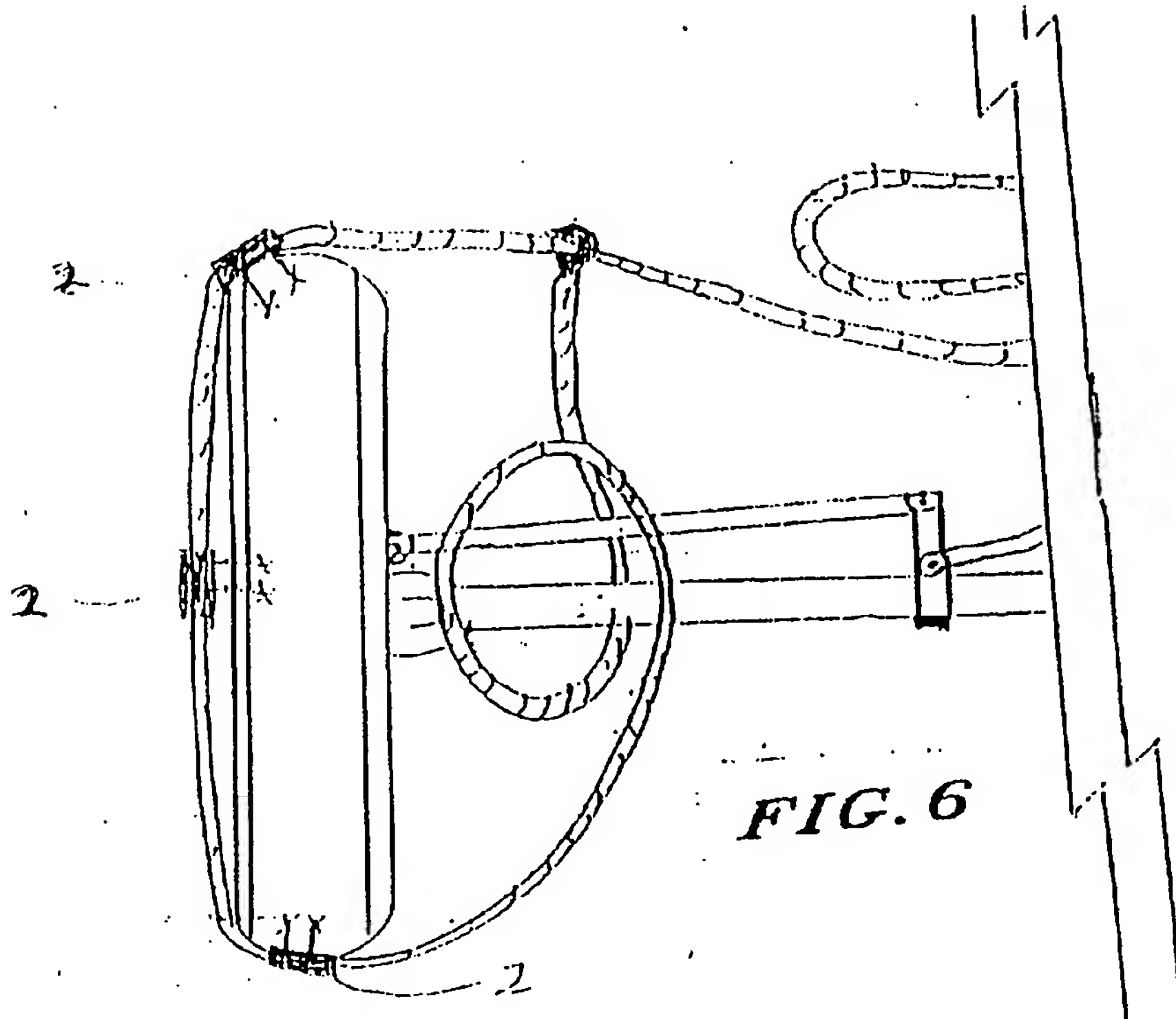


FIG. 7

Collier
 Appl. No. 60/136,142 Filed May 14, 1999 U.S.
 Wheel and track snair

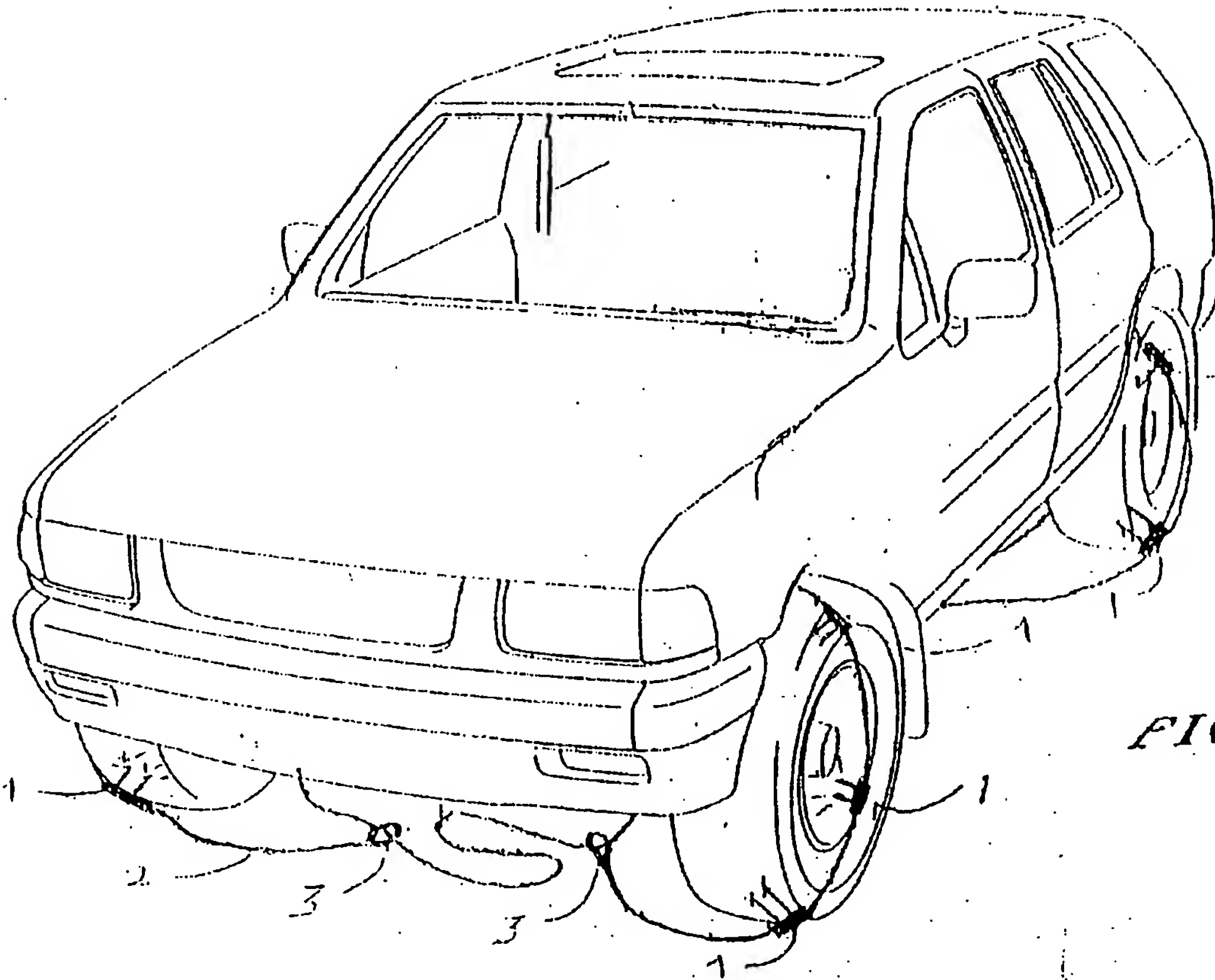


FIG. 8

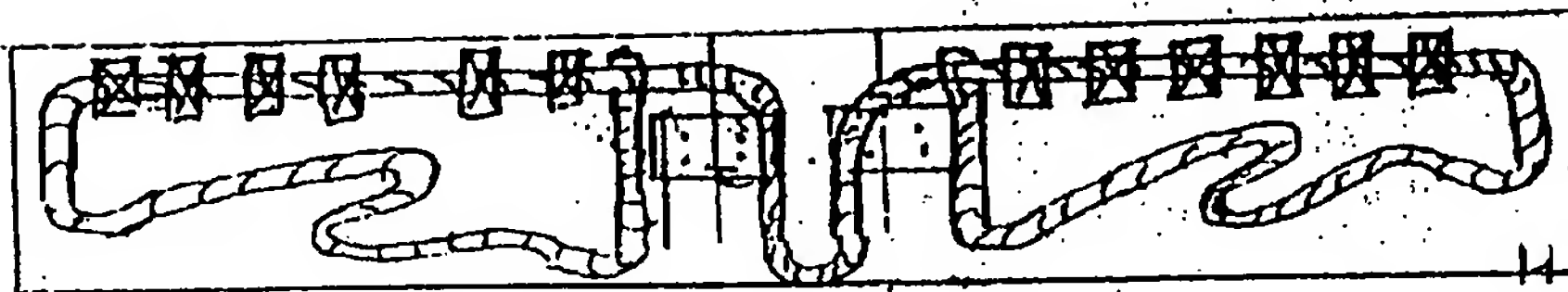
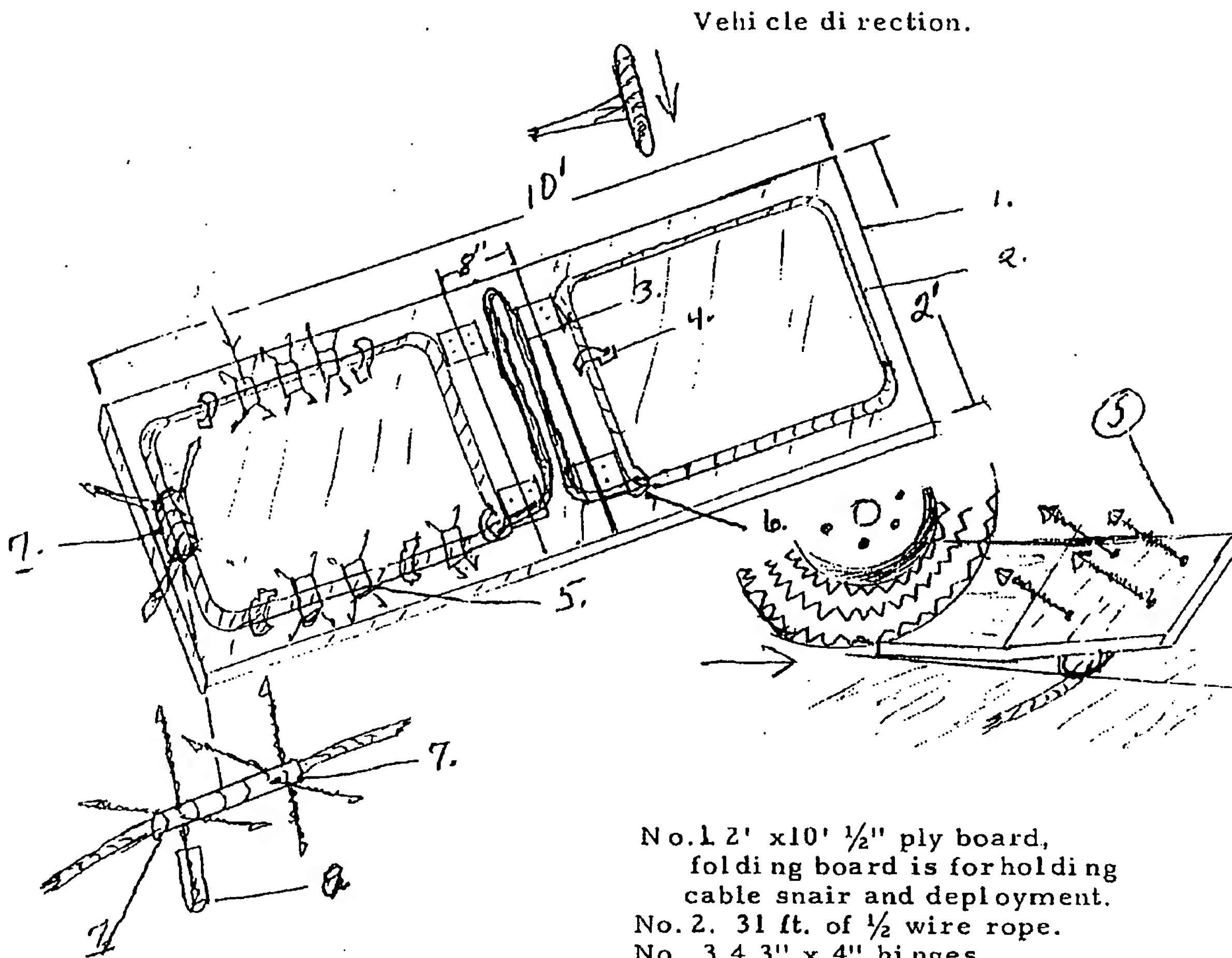


FIG 9

1/2 15 OK

"COLLIER AUTOMOBILE WHEEL SNAIR"



No. 1 2' x 10' 1/2" ply board,
folding board is for holding
cable snair and deployment.

No. 2. 31 ft. of 1/2 wire rope.

No. 3. 4 3" x 4" hinges.

No. 4. 16 2" cable hold down
clips.

No. 5. 56 4"x8" steel plate 3/8 "
thick. With three 3 in. x
5/16" tapered steel barbs.
Plate has 4 1/2" spindle for
cable to pass through and 3" x
4" toe plate to hold spikes
against tire. Spikes will
penetrate tire at different
angle causing grip. Toe
plate set at 10 degree angle.

No. 6. Slip knot for sinching
effect on wheel and tire.

No. 7. Out side multi barbed
cylinder for locking
into tire and wheel.

Cylinder is 1/2 x 6" 8 3 1/2" barbs
set at 5 inches apart and 90
degree angle.

3" cover.

Inventor Ace R Collier.

Inception, May 7, 1998.

This inception can be used on
military tanks.

Ace R Collier
May 7, 1999

7-2001

BLEVINS

PRIOR ART

PAT NO. U.S. 6,206,608 B1

3-27-2001

(22) 6-14-99

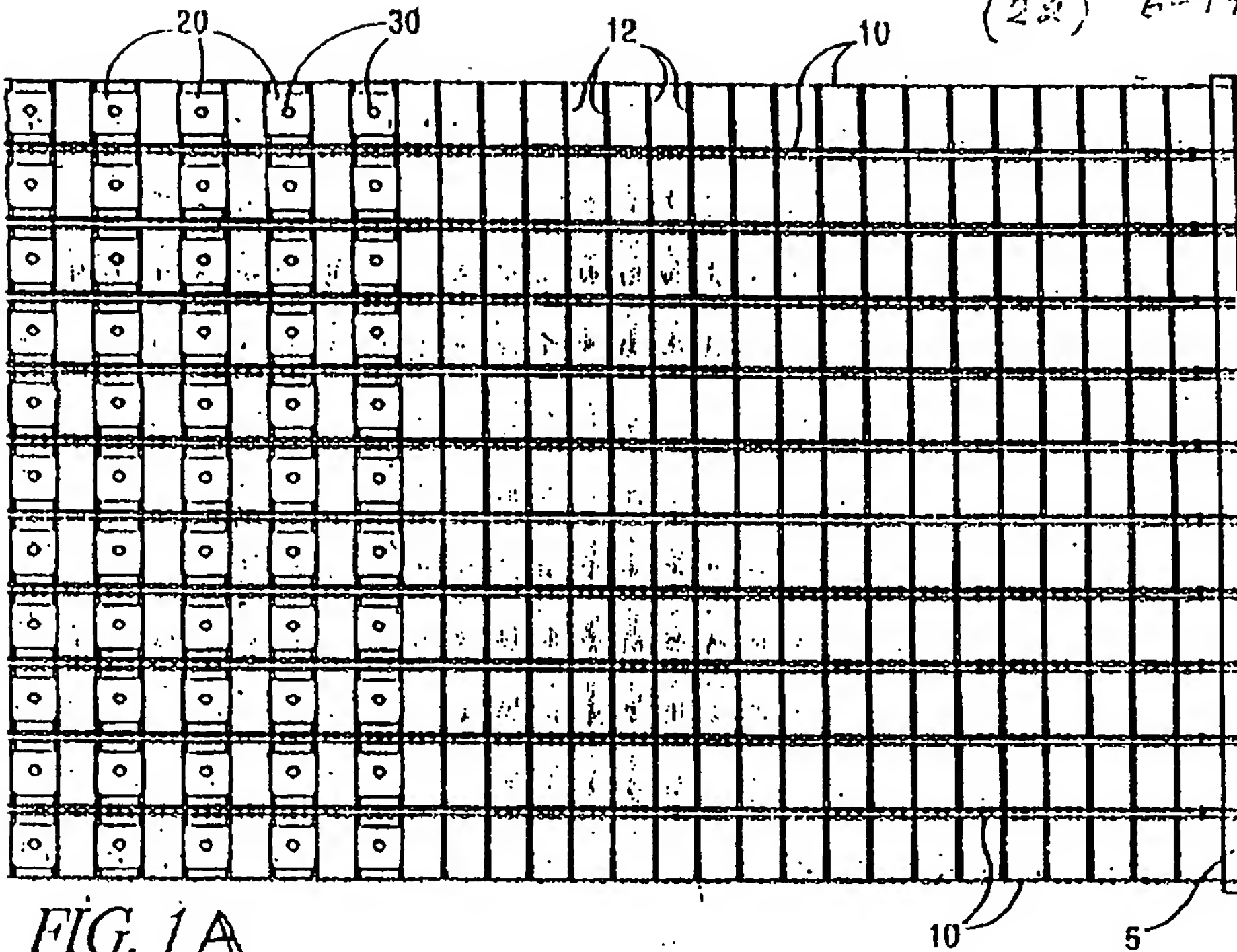


FIG. 1A

PRIOR ART

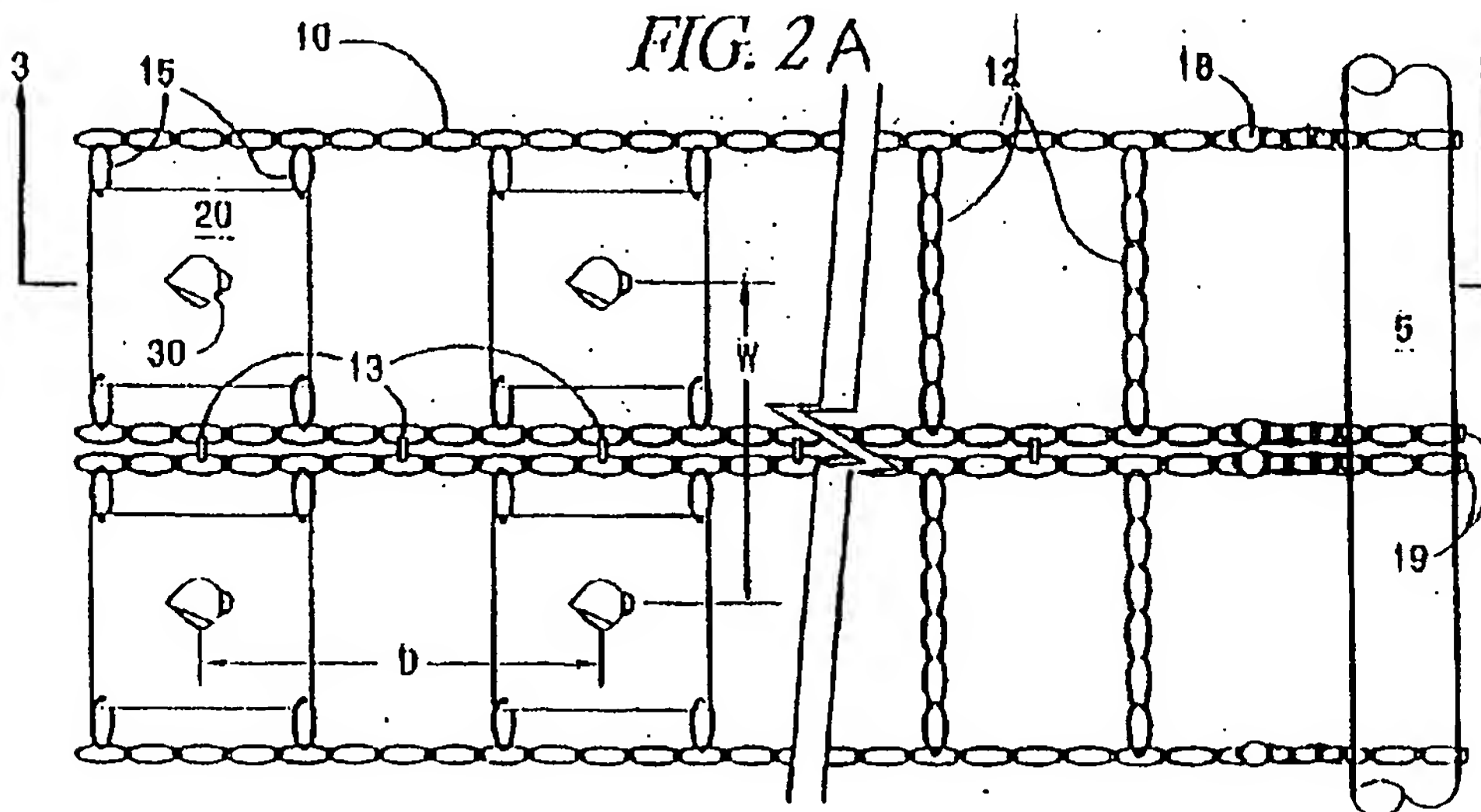


FIG. 2A